

PRELIMINARY AMENDMENT UNDER 37 C.F.R. §1.173(b)

IN THE CLAIMS:

Please amend original Claims 8, 9, 10, 12, 13 and 20, and add new Claims 21-126, as follows. The entire text of new claims 21-126 is underlined, in accordance with 37 C.F.R. §1.173(b) and (d).

8. (currently amended) A positive type photosensitive image-forming material for use with an infrared laser according to claim 1, wherein a material, which is thermally decomposable and, in a [non-decomposable] non-decomposed state, is capable of substantially lowering the solubility of the copolymer, which is an aqueous alkali-soluble polymer compound, is used in combination with the copolymer as the composition forming the layer (A).

9. (currently amended) A positive type photosensitive image-forming material for use with an infrared laser according to claim 8, wherein the [substance] material, which is thermally decomposable and, in the [non-decomposable] non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is selected from onium salt, quinonediazide compound, aromatic sulfone compound and aromatic sulfonate compound.

10. (currently amended) A positive [Apositive] type photosensitive image-forming material for use with an infrared laser according to claim 8, wherein the [substance] material, which is thermally decomposable and, in the [non-decomposable] non-decomposed state, is capable of substantially lowering the solubility of the aqueous

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alkali-soluble polymer compound, contains at least one of [compound a] compound (II) or (III) represented by the following formula:



wherein R^1 and R^2 may be the same or different, and R^1 and R^2 each represent a substituted or non-substituted alkyl, alkenyl or aryl group.

12. (currently amended): A positive type photosensitive image-forming material for use with an infrared laser according to claim 1, wherein the compound which generates heat upon absorbing light contained in said layer (B) is selected from the group consisting of [the] pigments [or the] and dyes.

13. (currently amended): A positive type photosensitive image-forming material for use with an infrared laser according to claim 1, wherein the aqueous alkali solution-soluble resin having a phenolic hydroxyl group contained in said layer (B) is a novolak resin selected from [novolak resins such as] the group consisting of phenol formaldehyde resin, m-cresol formaldehyde resin, p-cresol formaldehyde resin, m-/p-mixed cresol formaldehyde resin, and phenol/cresol [(any of m-, p- or m-/p-mixed)] mixed formaldehyde resin comprising at least one of m-cresol formaldehyde resin, p-cresol formaldehyde resin, and m-/p-mixed cresol formaldehyde resin.

20. (currently amended): A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate;

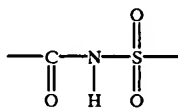
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a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, not less than 10% by mol of at least one of the following monomers (a-1) to (a-3):

(a-1) a monomer having in the molecule a sulfonamide group wherein at least one hydrogen atom is linked to a nitrogen atom,

(a-2) a monomer having in the molecule an active imino group represented by the following general formula (I):

(I)



, and

(a-3) a monomer selected from acrylamide, methacrylamide, acrylate, methacrylate and hydroxystyrene, which respectively have a phenolic hydroxyl group; and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, said layer (A) and said layer (B) being laminated on said substrate in that order, wherein at least said layer (B) contains at least one compound which generates heat upon absorbing light, and wherein said material can be [exosed] exposed to white light and thereafter remain useful as an image-forming material.

21. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 17, wherein the compound which generates heat upon absorbing light contained in said layer (B) is selected from the group consisting of pigments and dyes; and wherein said layer (A) further comprises a material, which is

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thermally decomposable and, in a non-decomposed state, is capable of substantially lowering the solubility of the copolymer in the layer (A), said copolymer being an aqueous alkali-soluble polymer compound.

22. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 21, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the copolymer of layer (A).

23. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 21, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

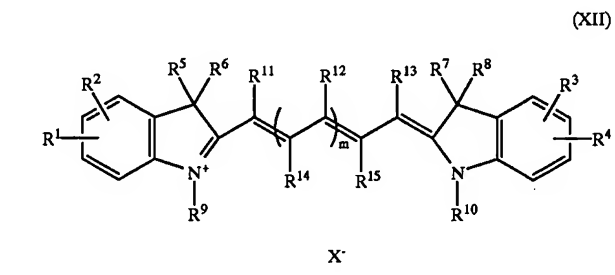
24. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 23, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

25. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 21, wherein said material which generates heat upon absorbing light in layer (B) is an infrared-absorbing dye compound.

26. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 25, wherein said infrared-absorbing dye compound in layer (B) is a cyanine dye compound.

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27. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 26, wherein said cyanine dye compound in layer (B) is represented by formula (XII):



wherein:

R¹ to R⁴ each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R¹ and R², R³ and R⁴ may be linked to form a ring;

R⁵ to R¹⁰ each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

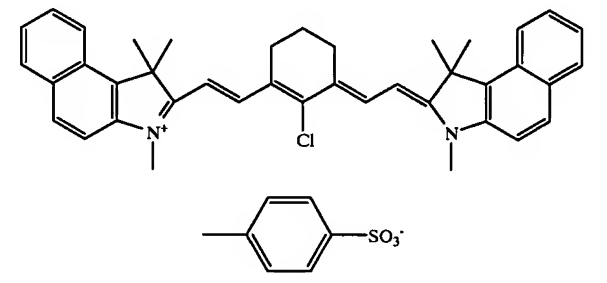
R¹¹ to R¹³ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹² may be linked to R¹¹ or R¹³ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹² groups, which may be the same or different, may be linked to form a ring;

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R¹⁴ and R¹⁵ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹⁴ may be linked to R¹⁵ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹⁴ groups, which may be the same or different, may be linked to form a ring; and

X⁻ represents an anion.

28. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 27, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



29. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 27, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the copolymer of layer (A).

30. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 27, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow

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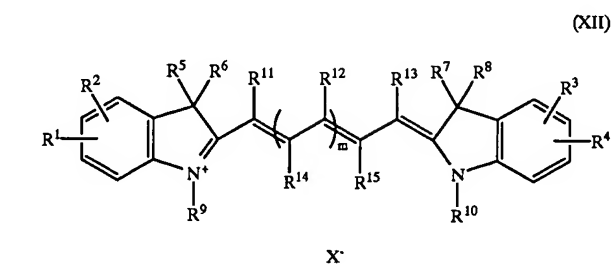
#101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

31. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 30, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

32. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 21, wherein said infrared-sensitive layer (A) contains an infrared-absorbing dye compound.

33. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 32, wherein said infrared-absorbing dye compound in layer (A) is a cyanine dye compound.

34. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 33, wherein said cyanine dye compound in layer (A) is represented by formula (XII):



wherein:

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R¹ to R⁴ each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R¹ and R², R³ and R⁴ may be linked to form a ring;

R⁵ to R¹⁰ each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

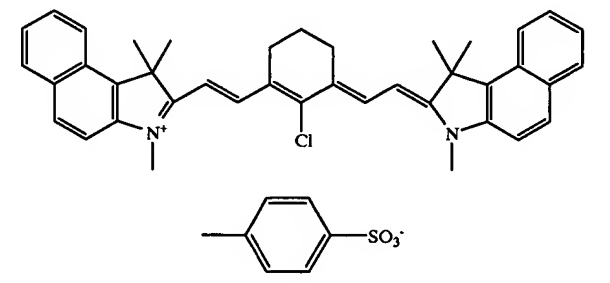
R¹¹ to R¹³ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹² may be linked to R¹¹ or R¹³ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹² groups, which may be the same or different, may be linked to form a ring;

R¹⁴ and R¹⁵ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹⁴ may be linked to R¹⁵ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹⁴ groups, which may be the same or different, may be linked to form a ring; and

X⁻ represents an anion.

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35. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 34, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



36. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 34, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the copolymer of layer (A).

37. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 34, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

38. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 37, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

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39. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 21, wherein said substrate comprises a polyester film or an aluminum plate.

40. A positive-type photosensitive image-forming material for use with an infrared laser according to any one of claims 21-39, wherein the aqueous alkali solution-soluble resin having a phenolic hydroxyl group contained in said layer (B) is a novolak resin.

41. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 40, wherein the novolak resin is selected from the group consisting of phenol formaldehyde resin, m-cresol formaldehyde resin, p-cresol formaldehyde resin, m-/p-mixed cresol formaldehyde resin, and phenol/cresol mixed formaldehyde resin comprising at least one of m-cresol formaldehyde resin, p-cresol formaldehyde resin, and m-/p-mixed cresol formaldehyde resin.

42. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 40, wherein the material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is contained in at least layer (A) and is selected from onium salt, quinonediazide compound, aromatic sulfone compound, and aromatic sulfonate compound.

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43. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 42, wherein the material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is an ammonium salt.

44. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 40, wherein the material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is contained in at least layer (A) and is an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

45. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 44, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

46. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 1,

wherein said substrate comprises an aluminum plate,

wherein in layer (A) the copolymer comprises monomer (a-1), and layer (A) further contains a cyanine dye and an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue

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BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue, and

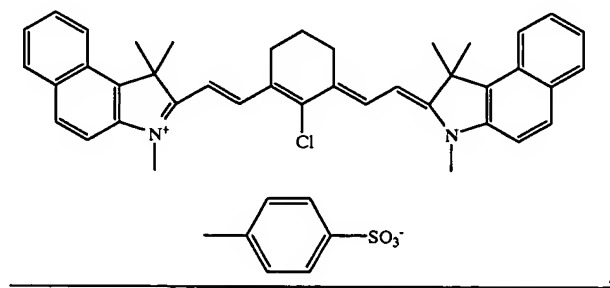
wherein in layer (B) the aqueous alkali solution-soluble resin is a novolak resin,
and

layer (B) further contains a cyanine dye and at least one onium salt.

47. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 46, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

48. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 46,

wherein in layers (A) and (B) the cyanine dye is cyanine dye A represented by the following formula:



the oil soluble dye or basic dye in layer (A) is Ethyl Violet, and

the onium salt in layer (B) is an ammonium salt.

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49. A positive-type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate;

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer compound, and a material which generates heat upon absorbing light, and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, said layer (B) being laminated directly on said layer (A) formed on said substrate,

wherein at least said layer (B) contains at least one infrared-absorbing dye compound which generates heat upon absorbing light.

50. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the aqueous alkali-soluble polymer compound of layer (A).

51. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

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52. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 51, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

53. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said layer (A) and said layer (B) are infrared-sensitive.

54. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 53, wherein said material which generates heat upon absorbing light in layer (A) is an infrared-absorbing dye compound.

55. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the aqueous alkali-soluble polymer compound of layer (A).

56. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

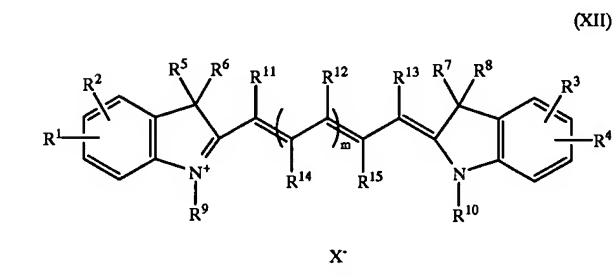
57. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 56, wherein said oil-soluble dye or basic dye is selected

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from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

58. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said infrared-absorbing dye compound in layer (B) is a cyanine dye compound.

59. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 58, wherein said cyanine dye compound in layer (B) is represented by formula (XII):



wherein:

R¹ to R⁴ each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R¹ and R², R³ and R⁴ may be linked to form a ring;

R⁵ to R¹⁰ each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

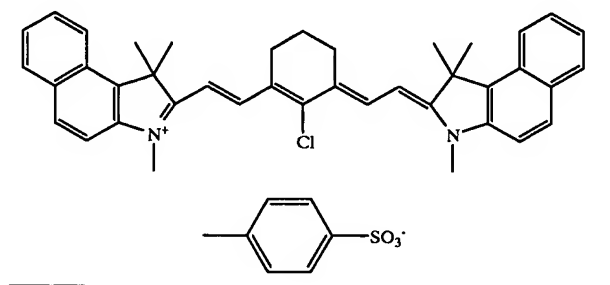
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R¹¹ to R¹³ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹² may be linked to R¹¹ or R¹³ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹² groups, which may be the same or different, may be linked to form a ring;

R¹⁴ and R¹⁵ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹⁴ may be linked to R¹⁵ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹⁴ groups, which may be the same or different, may be linked to form a ring; and

X⁻ represents an anion.

60. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 59, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



61. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 59, wherein a solvent for the aqueous alkali solution-

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soluble resin of layer (B) cannot dissolve the aqueous alkali-soluble polymer compound of layer (A).

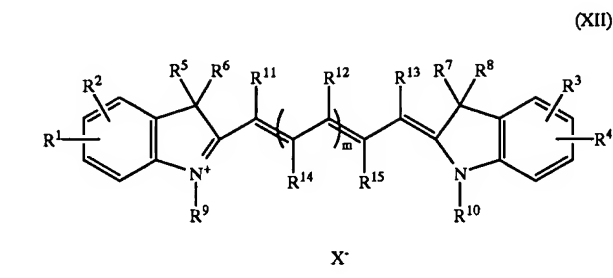
62. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 59, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

63. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 62, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

64. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein said infrared-absorbing dye compound in layer (A) is a cyanine dye compound.

65. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 64, wherein said cyanine dye compound in layer (A) is represented by formula (XII):

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wherein:

R¹ to R⁴ each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R¹ and R², R³ and R⁴ may be linked to form a ring;

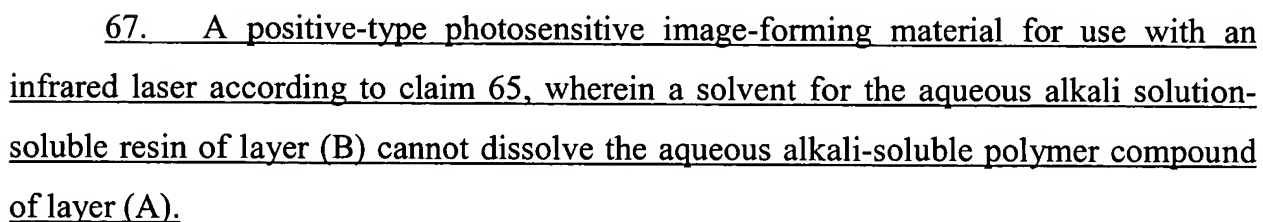
R⁵ to R¹⁰ each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

R¹¹ to R¹³ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹² may be linked to R¹¹ or R¹³ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹² groups, which may be the same or different, may be linked to form a ring;

R¹⁴ and R¹⁵ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹⁴ may be linked to R¹⁵ to

form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{14} groups, which may be the same or different, may be linked to form a ring; and

66. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 65, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



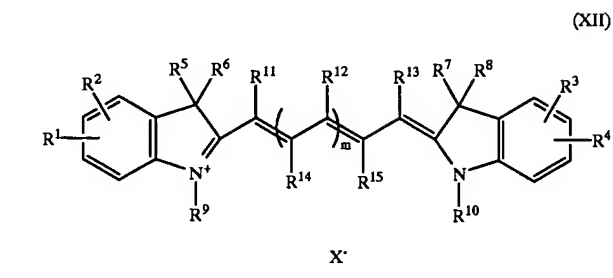
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69. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 68, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

70. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein said infrared-absorbing dye compounds in layers (A) and (B) are cyanine dye compounds.

71. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 70, wherein said cyanine dye compounds are represented by formula (XII):



wherein:

R¹ to R⁴ each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R¹ and R², R³ and R⁴ may be linked to form a ring;

R⁵ to R¹⁰ each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or

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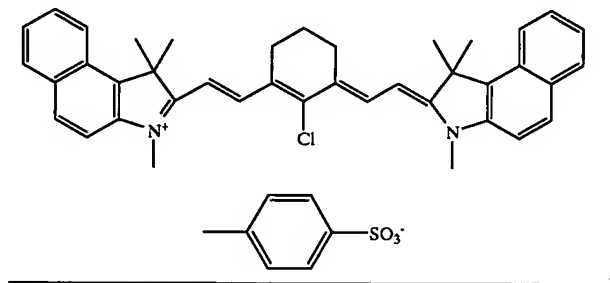
substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

R¹¹ to R¹³ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹² may be linked to R¹¹ or R¹³ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹² groups, which may be the same or different, may be linked to form a ring;

R¹⁴ and R¹⁵ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹⁴ may be linked to R¹⁵ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹⁴ groups, which may be the same or different, may be linked to form a ring; and

X⁻ represents an anion.

72. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 71, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



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73. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 71, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the aqueous alkali-soluble polymer compound of layer (A).

74. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 71, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

75. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 74, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

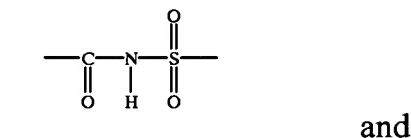
76. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said aqueous alkali-soluble polymer compound, is a copolymer which contains, as a copolymerization component, not less than 10% by mol of at least one of the following monomers (a-1) to (a-3):

(a-1) a monomer having in the molecule a sulfonamide group wherein at least one hydrogen atom is linked to a nitrogen atom,

(a-2) a monomer having in the molecule an active imino group represented by the following general formula (I):

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(I)



(a-3) a monomer selected from acrylamide, methacrylamide, acrylate, methacrylate and hydroxystyrene, which respectively have a phenolic hydroxyl group.

77. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 76, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the aqueous alkali-soluble polymer compound of layer (A).

78. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 76, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

79. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 78, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

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80. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said layer (A) comprises a thermally decomposable material which, in a non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound.

81. A positive type photosensitive image-forming material for use with an infrared laser according to claim 80, wherein said material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is selected from onium salt, quinonediazide compound, aromatic sulfone compound and aromatic sulfonate compound.

82. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 81, wherein a solvent for the aqueous alkali solution-soluble resin of layer (B) cannot dissolve the aqueous alkali-soluble polymer compound of layer (A).

83. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 81, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

84. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 83, wherein said oil-soluble dye or basic dye is selected

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from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

85. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said substrate comprises a polyester film or an aluminum plate.

86. A positive-type photosensitive image-forming material for use with an infrared laser according to any one of claims 49-85, wherein the aqueous alkali solution-soluble resin having a phenolic hydroxyl group contained in said layer (B) is a novolak resin.

87. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 86, wherein the novolak resin is selected from the group consisting of phenol formaldehyde resin, m-cresol formaldehyde resin, p-cresol formaldehyde resin, m-/p-mixed cresol formaldehyde resin, and phenol/cresol mixed formaldehyde resin comprising at least one of m-cresol formaldehyde resin, p-cresol formaldehyde resin, and m-/p-mixed cresol formaldehyde resin.

88. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 86, wherein the material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is contained in at least layer

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(A) and is selected from onium salt, quinonediazide compound, aromatic sulfone compound, and aromatic sulfonate compound.

89. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 88, wherein the material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is an ammonium salt.

90. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 86, wherein the material, which is thermally decomposable and, in the non-decomposed state, is capable of substantially lowering the solubility of the aqueous alkali-soluble polymer compound, is contained in at least layer (A) and is an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

91. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 90, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

92. A photosensitive image-forming material for use with an infrared laser, comprising:

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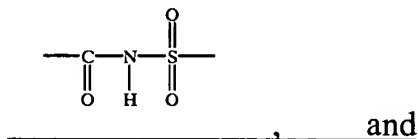
a substrate;

a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, not less than 10% by mol of at least one of the following monomers (a-1) to (a-3):

(a-1) a monomer having in the molecule a sulfonamide group wherein at least one hydrogen atom is linked to a nitrogen atom,

(a-2) a monomer having in the molecule an active imino group represented by the following general formula (I):

(I)



(a-3) a monomer selected from acrylamide, methacrylamide, acrylate, methacrylate and hydroxystyrene, which respectively have a phenolic hydroxyl group; and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, said layer (B) being laminated directly on said layer (A) formed on said substrate, wherein at least said layer (B) contains at least one compound which generates heat upon absorbing light,

wherein the compound which generates heat upon absorbing light contained in said layer (B) is infrared-sensitive and selected from the group consisting of pigments and dyes, and

wherein the image-forming material is a negative image-forming material.

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93. A photosensitive image-forming material for use with an infrared laser according to claim 92, wherein said layers (A) and (B) are infrared-sensitive.

94. A photosensitive image-forming material for use with an infrared laser according to claim 93, wherein the compound which generates heat upon absorbing light contained in said layer (B) is a cyanine dye compound.

95. A photosensitive image-forming material for use with an infrared laser according to claim 94, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

96. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 95, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

97. A photosensitive image-forming material for use with an infrared laser according to claim 95, wherein the aqueous alkali solution-soluble resin having a phenolic hydroxyl group contained in said layer (B) is a novolak resin.

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98. A photosensitive image-forming material for use with an infrared laser according to any one of claims 92-97, wherein the negative image-forming material further contains in at least one of layers (A) and (B) a material which crosslinks in the presence of an acid.

99. A photosensitive image-forming material for use with an infrared laser according to claim 98, wherein the material which crosslinks in the presence of an acid is selected from the group consisting of (i) a compound having two or more hydroxymethyl groups or alkoxymethyl groups, epoxy groups or vinyl ether groups, which bond to a benzene ring, (ii) a compound having a N-hydroxymethyl group, N-alkoxymethyl group or N-acyloxymethyl group, and (iii) epoxy compounds.

100. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, at least one monomer selected from the group consisting of the following monomers (1) to (12):

- (1) an acrylate or methacrylate having an aliphatic hydroxyl group,
- (2) an alkyl acrylate,
- (3) an alkyl methacrylate,
- (4) an acrylamide or methacrylamide,
- (5) a vinyl ether,

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(6) a vinyl ester,

(7) a styrene,

(8) a vinyl ketone,

(9) an olefin,

(10) N-vinyl pyrrolidone, N-vinyl carbazole, 4-vinyl pyridine,
acrylonitrile, or methacrylonitrile,

(11) an unsaturated imide, and

(12) an unsaturated carboxylic acid; and

a layer (B) containing not less than 50% by weight of a novolak resin.

101. A positive type photosensitive image-forming material for use with an infrared laser according to claim 100, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

102. A positive type photosensitive image-forming material for use with an infrared laser according to claim 101, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

103. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 102, wherein said oil-soluble dye or basic dye is

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selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

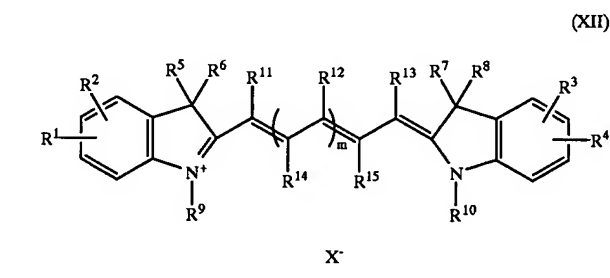
104. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer; and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group,

wherein at least one of the layer (A) and the layer (B) contains a compound which generates heat upon absorbing light that is represented by the formula (XII):



wherein:

R¹ to R⁴ each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R¹ and R², R³ and R⁴ may be linked to form a ring;

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R⁵ to R¹⁰ each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitril group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

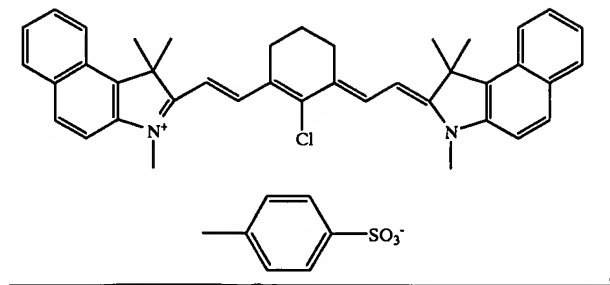
R¹¹ to R¹³ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹² may be linked to R¹¹ or R¹³ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹² groups, which may be the same or different, may be linked to form a ring;

R¹⁴ and R¹⁵ each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R¹⁴ may be linked to R¹⁵ to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R¹⁴ groups, which may be the same or different, may be linked to form a ring; and

X⁻ represents an anion.

105. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 104, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:

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106. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer, and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group,

wherein the layer (B) contains a surfactant.

107. A positive type photosensitive image-forming material for use with an infrared laser according to claim 106, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

108. A positive type photosensitive image-forming material for use with an infrared laser according to claim 107, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue

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#603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

109. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 108, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

110. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, at least one monomer selected from an unsaturated imide, methacrylamide, and an unsaturated carboxylic acid; and

a layer (B) containing not less than 50% by weight of a novolak resin;

wherein said layer (A) comprises a cyanine dye and said layer (B) comprises an Ethyl Violet dye.

111. A positive type photosensitive image-forming material for use with an infrared laser, which is produced by a method comprising the steps of:

providing a substrate;

coating a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer on the substrate; and

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coating a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group on the layer (A) using a solvent which does not dissolve the layer (A).

112. A positive type photosensitive image-forming material for use with an infrared laser according to claim 111, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

113. A positive type photosensitive image-forming material for use with an infrared laser according to claim 112, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

114. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 113, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

115. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

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a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer; and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group;

wherein a coated amount of the layer (A) is from 1.4 to 4.0 g/m².

116. A positive type photosensitive image-forming material for use with an infrared laser according to claim 115, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

117. A positive type photosensitive image-forming material for use with an infrared laser according to claim 116, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

118. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 117, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

119. A positive type photosensitive image-forming material for use with an infrared laser, which is produced by a method comprising the steps of

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providing a substrate,

coating a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer on the substrate,

coating a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group on the layer (A), and

drying the coated layer (B) by applying a high-pressure air flow or heat provided by a heating roll.

120. A positive type photosensitive image-forming material for use with an infrared laser according to claim 119, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

121. A positive type photosensitive image-forming material for use with an infrared laser according to claim 120, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

122. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 121, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

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123. A positive-type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate;

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer compound, and a material which generates heat upon absorbing light, and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, said layer (B) being laminated directly on said layer (A) formed on said substrate.

124. A positive type photosensitive image-forming material for use with an infrared laser according to claim 123, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

125. A positive type photosensitive image-forming material for use with an infrared laser according to claim 124, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

126. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 125, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

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STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES:

Pursuant to 37 C.F.R. §1.173(c), applicants provide the following statement of the status as of the date of the present amendment of all patent claims and of all added claims, and an explanation of the support in the disclosure of the patent for the changes made to the claims.

A. Status of patent claims and added claims

Claim 1	PENDING	ORIGINAL
Claim 2	PENDING	ORIGINAL
Claim 3	PENDING	ORIGINAL
Claim 4	PENDING	ORIGINAL
Claim 5	PENDING	ORIGINAL
Claim 6	PENDING	ORIGINAL
Claim 7	PENDING	ORIGINAL
Claim 8	PENDING	AMENDED
Claim 9	PENDING	AMENDED
Claim 10	PENDING	AMENDED
Claim 11	PENDING	ORIGINAL
Claim 12	PENDING	AMENDED
Claim 13	PENDING	AMENDED
Claim 14	PENDING	ORIGINAL
Claim 16	PENDING	ORIGINAL
Claim 17	PENDING	ORIGINAL
Claim 18	PENDING	ORIGINAL
Claim 19	PENDING	ORIGINAL
Claim 20	PENDING	AMENDED
Claim 21	PENDING	NEW
Claim 22	PENDING	NEW
Claim 23	PENDING	NEW
Claim 24	PENDING	NEW
Claim 25	PENDING	NEW
Claim 26	PENDING	NEW
Claim 27	PENDING	NEW
Claim 28	PENDING	NEW
Claim 29	PENDING	NEW

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Claim 30	PENDING	NEW
Claim 31	PENDING	NEW
Claim 32	PENDING	NEW
Claim 33	PENDING	NEW
Claim 34	PENDING	NEW
Claim 35	PENDING	NEW
Claim 36	PENDING	NEW
Claim 37	PENDING	NEW
Claim 38	PENDING	NEW
Claim 39	PENDING	NEW
Claim 40	PENDING	NEW
Claim 41	PENDING	NEW
Claim 42	PENDING	NEW
Claim 43	PENDING	NEW
Claim 44	PENDING	NEW
Claim 45	PENDING	NEW
Claim 46	PENDING	NEW
Claim 47	PENDING	NEW
Claim 48	PENDING	NEW
Claim 49	PENDING	NEW
Claim 50	PENDING	NEW
Claim 51	PENDING	NEW
Claim 52	PENDING	NEW
Claim 53	PENDING	NEW
Claim 54	PENDING	NEW
Claim 55	PENDING	NEW
Claim 56	PENDING	NEW
Claim 57	PENDING	NEW
Claim 58	PENDING	NEW
Claim 59	PENDING	NEW
Claim 60	PENDING	NEW
Claim 61	PENDING	NEW
Claim 62	PENDING	NEW
Claim 63	PENDING	NEW
Claim 64	PENDING	NEW
Claim 65	PENDING	NEW
Claim 66	PENDING	NEW
Claim 67	PENDING	NEW
Claim 68	PENDING	NEW
Claim 69	PENDING	NEW

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Claim 70	PENDING	NEW
Claim 71	PENDING	NEW
Claim 72	PENDING	NEW
Claim 73	PENDING	NEW
Claim 74	PENDING	NEW
Claim 75	PENDING	NEW
Claim 76	PENDING	NEW
Claim 77	PENDING	NEW
Claim 78	PENDING	NEW
Claim 79	PENDING	NEW
Claim 80	PENDING	NEW
Claim 81	PENDING	NEW
Claim 82	PENDING	NEW
Claim 83	PENDING	NEW
Claim 84	PENDING	NEW
Claim 85	PENDING	NEW
Claim 86	PENDING	NEW
Claim 87	PENDING	NEW
Claim 88	PENDING	NEW
Claim 89	PENDING	NEW
Claim 90	PENDING	NEW
Claim 91	PENDING	NEW
Claim 92	PENDING	NEW
Claim 93	PENDING	NEW
Claim 94	PENDING	NEW
Claim 95	PENDING	NEW
Claim 96	PENDING	NEW
Claim 97	PENDING	NEW
Claim 98	PENDING	NEW
Claim 99	PENDING	NEW
Claim 100	PENDING	NEW
Claim 101	PENDING	NEW
Claim 102	PENDING	NEW
Claim 103	PENDING	NEW
Claim 104	PENDING	NEW
Claim 105	PENDING	NEW
Claim 106	PENDING	NEW
Claim 107	PENDING	NEW
Claim 108	PENDING	NEW
Claim 109	PENDING	NEW

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Claim 110	PENDING	NEW
Claim 111	PENDING	NEW
Claim 112	PENDING	NEW
Claim 113	PENDING	NEW
Claim 114	PENDING	NEW
Claim 115	PENDING	NEW
Claim 116	PENDING	NEW
Claim 117	PENDING	NEW
Claim 118	PENDING	NEW
Claim 119	PENDING	NEW
Claim 120	PENDING	NEW
Claim 121	PENDING	NEW
Claim 122	PENDING	NEW
Claim 123	PENDING	NEW
Claim 124	PENDING	NEW
Claim 125	PENDING	NEW
Claim 126	PENDING	NEW

B. Support for new claims

Claim 21	col. 4, lines 50-57; col. 9, lines 33-40; col. 15, lines 19-21; original Claims 8 and 12
Claim 22	col. 20, lines 8-13
Claim 23	col. 12, lines 57-67; col. 19, lines 43-48
Claim 24	col. 12, lines 64-65
Claim 25	col. 15, lines 12-21
Claim 26	col. 17, lines 4-36; col. 18, lines 39-43
Claim 27	col. 17, line 4, through col. 18, line 19; col. 18, line 39, through col. 19, line 35
Claim 28	col. 18, lines 39-59
Claim 29	col. 20, lines 8-13
Claim 30	col. 12, lines 57-67; col. 19, lines 43-48
Claim 31	col. 12, lines 64-65
Claim 32	col. 15, lines 12-21; col. 16, line 66, through col. 17, line 3
Claim 33	col. 17, lines 4-36; col. 18, lines 39-43
Claim 34	col. 17, line 4, through col. 18, line 19; col. 18, line 39, through col. 19, line 35
Claim 35	col. 18, lines 39-59
Claim 36	col. 20, lines 8-13
Claim 37	col. 12, lines 57-67; col. 19, lines 43-48

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Claim 38	col. 12, lines 64-65
Claim 39	col. 34, lines 42-57; original Claim 14
Claim 40	col. 14, lines 61-67; original Claim 13
Claim 41	col. 14, lines 61-67; original Claim 13
Claim 42	col. 9, lines 33-42; col. 19, lines 43-48; original Claims 8-9
Claim 43	col. 9, lines 43-49
Claim 44	col. 12, lines 57-67; col. 19, lines 43-48
Claim 45	col. 12, lines 64-65
Claim 46	col. 9, lines 33-49; col. 19, lines 43-48; col. 34, lines 55-57; Example 1 at col. 41
Claim 47	col. 12, lines 64-65
Claim 48	col. 9, line 44; col. 12, line 65; col. 18, lines 39-60; Example 1 at col. 41
Claim 49	col. 7, lines 42-52; col. 14, lines 56-60; col. 16, line 66, through col. 17, line 36; col. 34, lines 42-53
Claim 50	col. 20, lines 8-13
Claim 51	col. 12, lines 57-67; col. 19, lines 43-48
Claim 52	col. 12, lines 64-65
Claim 53	col. 16, line 66, through col. 17, line 36; col. 18, lines 39-59; Example 1 at col. 41; original Claim 17
Claim 54	col. 16, line 66, through col. 17, line 36; col. 18, lines 39-59; Example 1 at col. 41
Claim 55	col. 20, lines 8-13
Claim 56	col. 12, lines 57-67; col. 19, lines 43-48
Claim 57	col. 12, lines 64-65
Claim 58	col. 16, line 66, through col. 17, line 36; col. 18, lines 39-59; Example 1 at col. 41
Claim 59	col. 17, line 4, through col. 18, line 19; col. 18, line 39, through col. 19, line 35
Claim 60	col. 18, lines 39-59
Claim 61	col. 20, lines 8-13
Claim 62	col. 12, lines 57-67; col. 19, lines 43-48
Claim 63	col. 12, lines 64-65
Claim 64	col. 16, line 66, through col. 17, line 36; col. 18, lines 39-59; Example 1 at col. 41
Claim 65	col. 17, line 4, through col. 18, line 19; col. 18, line 39, through col. 19, line 35
Claim 66	col. 18, lines 39-59
Claim 67	col. 20, lines 8-13
Claim 68	col. 12, lines 57-67; col. 19, lines 43-48

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Claim 69	col. 12, lines 64-65
Claim 70	col. 16, line 66, through col. 17, line 36; col. 18, lines 39-59; Example 1 at col. 41
Claim 71	col. 17, line 4, through col. 18, line 19; col. 18, line 39, through col. 19, line 35
Claim 72	col. 18, lines 39-59
Claim 73	col. 20, lines 8-13
Claim 74	col. 12, lines 57-67; col. 19, lines 43-48
Claim 75	col. 12, lines 64-65
Claim 76	col. 3, line 54, through col. 4, line 7
Claim 77	col. 20, lines 8-13
Claim 78	col. 12, lines 57-67; col. 19, lines 43-48
Claim 79	col. 12, lines 64-65
Claim 80	col. 9, lines 33-42
Claim 81	col. 9, lines 33-42
Claim 82	col. 20, lines 8-13
Claim 83	col. 12, lines 57-67; col. 19, lines 43-48
Claim 84	col. 12, lines 64-65
Claim 85	col. 34, lines 42-57; original Claim 14
Claim 86	col. 14, lines 61-67; original Claim 13
Claim 87	col. 14, lines 61-67; original Claim 13
Claim 88	col. 9, lines 33-42; col. 19, lines 43-48; original Claims 8-9
Claim 89	col. 9, lines 43-49
Claim 90	col. 12, lines 57-67; col. 19, lines 43-48
Claim 91	col. 12, lines 64-65
Claim 92	col. 3, line 54, through col. 4, line 7; col. 13, lines 24-27; col. 14, lines 56-60; col. 16, line 66, through col. 17, line 36; col. 19, lines 48-51; col. 34, lines 42-53
Claim 93	col. 16, line 66, through col. 17, line 36; col. 18, lines 39-59; Example 1 at col. 41; original Claim 17
Claim 94	col. 18, lines 39-59
Claim 95	col. 12, lines 57-67; col. 19, lines 43-48
Claim 96	col. 12, lines 64-65
Claim 97	col. 14, lines 61-67
Claim 98	col. 13, lines 28-35; col. 19, lines 48-51
Claim 99	col. 13, lines 28-35; col. 19, lines 48-51
Claim 100	col. 6, line 24, through col. 7, line 52; col. 14, lines 56-67; col. 34, lines 42-57
Claim 101	col. 16, line 66, through col. 17, line 3
Claim 102	col. 12, lines 57-67; col. 19, lines 43-48

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Claim 103	col. 12, lines 64-65
Claim 104	col. 7, lines 42-52; col. 14, lines 56-57; col. 16, line 66, through col. 18, line 59; col. 34, lines 42-53
Claim 105	col. 18, lines 39-59
Claim 106	col. 7, lines 42-53; col. 12, lines 16-22; col. 14, lines 56-67; col. 19, lines 43-48; col. 34, lines 42-53
Claim 107	col. 16, line 66, through col. 17, line 3
Claim 108	col. 12, lines 57-67; col. 19, lines 43-48
Claim 109	col. 12, lines 64-65
Claim 110	col. 6, lines 40, 60, and 65; col. 7, lines 42-53; col. 12, lines 57-67; col. 14, lines 56-67; col. 16, line 66, through col. 17, line 25; col. 18, lines 39-59; col. 19, lines 43-48; col. 34, lines 42-53
Claim 111	col. 7, lines 42-52; col. 14, lines 50-55 and 56-67; col. 20, lines 6-27; col. 34, lines 42-53
Claim 112	col. 16, line 66, through col. 17, line 3
Claim 113	col. 12, lines 57-67; col. 19, lines 43-48
Claim 114	col. 12, lines 64-65
Claim 115	col. 7, lines 42-53; col. 14, lines 50-55 and 56-67; col. 34, lines 42-53; Example 1 at col. 41; original Claim 5
Claim 116	col. 16, line 66, through col. 17, line 3
Claim 117	col. 12, lines 57-67; col. 19, lines 43-48
Claim 118	col. 12, lines 64-65
Claim 119	col. 7, lines 42-52; col. 14, lines 56-67; col. 20, lines 28-36; col. 34, lines 42-53
Claim 120	col. 16, line 66, through col. 17, line 3
Claim 121	col. 12, lines 57-67; col. 19, lines 43-48
Claim 122	col. 12, lines 64-65
Claim 123	col. 7, lines 42-52; col. 14, lines 56-67; col. 16, line 66, through col. 17, line 3; col. 34, lines 42-53
Claim 124	col. 16, line 66, through col. 17, line 3
Claim 125	col. 12, lines 57-67; col. 19, lines 43-48
Claim 126	col. 12, lines 64-65